Volume 64 Number 8 August 1971

Proceedings of the Royal Society of Medicine

Issued under the direction of Council

Editor
D LUKYN-WILLIAMS
Secretary of the Royal Society of Medicine
R T HEWITT
All correspondence to
The Honorary Editors
1 Wimpole Street London W1M 8AE
Telephone: 01-580 2070
Distributing Agents
H K Lewis & Co Ltd
136 Gower St London WC1
Henry M Stratton Inc
757 Third Avenue New York
New York 100 17 USA
Advertisement Managers
H S Janes & Partners Ltd
St Martin's House 159–163 Clapham High Street
London SW4
Telephone: 01-622 9222
Subscriptions
British Commonwealth
Monthly £1·25 net Annually £15
USA: Annually $42

Cover illustration
The illustration on this month's cover is taken from Fig 1 of Angus Macdonald's case of 'Erythrodermic Psoriasis with Corneal Ulcers and Ophthalmological Sequelæ' (p 866)

Emergency Portacaval Anastomosis in Pregnancy

A A Brown MB
(for Harvey B Ross MS FRCS)
(*St Bartholomew's Hospital, London*)

Mrs M G, aged 37, primipara
History: Ulcerative colitis was diagnosed in 1958; surgery was advised but refused by the patient who was subsequently managed with steroids and sulphasalazine. During investigations for infertility in 1969 abnormal liver function was found and subsequent biopsy showed biliary cirrhosis.

September 1970: She attended the antenatal clinic at 18 weeks gestation, complaining of malaise and tarry stools. Barium swallow showed œsophageal varices. The initial plan of management was to admit her to hospital for bed rest for the duration of the pregnancy. In October, at 21 weeks gestation, there was a small hæmetemesis followed the next day by a much larger bleed, necessitating blood transfusion.

Operation (24.10.70): Portal venography revealed a widely patent portal vein and end-to-side portacaval anastomosis was performed. The pregnant uterus did not cause great technical difficulties.

Progress: On the second post-operative day she went into hepatic coma, due to absorption of blood products from the blood noted in the bowel at the time of operation. The coma responded well to purgation and neomycin. Six weeks later coma again occurred, associated with hypokalæmia (2·5 mEq/l) which was due to ACTH and diuretics. This responded well to potassium infusion. The pregnancy is progressing normally at 32 weeks.

Comment
Those patients with cirrhosis who do succeed in becoming pregnant are at risk from several causes. Bleeding from œsophageal varices is more likely, due to increasing intra-abdominal pressure and caval compression causing re-routing of blood into the azygous system. Coma is more likely to occur, and this can be associated with bleeding into the gastrointestinal tract, anæsthesia, infections and drugs used in obstetric practice. It may also be associated with electrolyte disorder as occurred in this woman.

Portacaval decompression was performed for several reasons. First, if a non-decompression operation had been carried out there would have been a significant risk of bleeding later on in the same pregnancy. Secondly, from the point of view of the pregnancy, 21 weeks was the optimum time since the risk of abortion was low and the uterus not large enough to interfere with the procedure. Thirdly, in the patient with no signs of gross liver impairment (jaundice, ascites, encephalopathy) morbidity and mortality of portal decompression procedures are comparable to interruption methods.

This case represents the fifth recorded portal decompression in pregnancy. In the other 4 cases, 4 live children have been produced (O'Leary & Bepko 1962, Chapis 1964, Johnston *et al.* 1965, Whelton & Sherlock 1968). Since the type of cirrhosis present is typical of that seen in association with ulcerative colitis, it is probable that the latter is the cause. Unfortunately the prognosis of the patient is poor, due to the active cirrhosis.

REFERENCES
Chapis N (1964) *Amer. J. Obstet. Gynec.* **90,** 272
Johnston G, Gordon A & Rogers H (1965) *J. Obstet. Gynæc. Brit. Cwlth* **72,** 292
O'Leary J & Bepko F (1962) *Obstet. and Gynec.* **20,** 243
Whelton M & Sherlock S (1968) *Lancet* ii, 995

The following case was also shown:

Intramural Intestinal Hæmorrhage

Mr Paul C Smith (for Mr J Burke)
(*St James' Hospital, London SW12*)

Meeting April 21 1971
at the Westminster Hospital, London SW1

Demonstrations and discussions were held on the following:

Gastrointestinal Endoscopy
Dr T N Miller (for Dr R D Tonkin)

Cardiac Catheterization and Angiocardiography
Dr A Cole (for Dr I M Anderson and Dr P R Fleming)

Echoencephalography and EEGs in Neurological Diagnosis
Dr M Webley and Dr R Sherratt (for Dr F B Gibberd)

Scanning in the Diagnosis of Bone Tumours
Dr T J Priestman (for Dr I W F Hanham and Dr J P Nicholson)

Hyperbaric Oxygen
Dr J G B Thurston

Lung Function Tests
Dr J Shaylor and Dr P Emerson

Psychiatric Interviews (Videotapes)
Dr J Poncia (for Dr P Dally)

The following cases were shown:

Parietal Cell Vagotomy
Mr C Wastell

Renal Transplantation and Cimino-Brescia Fistula
Mr M Naunton Morgan

Total Hip Replacement for a Giant Cell Tumour of the Femoral Neck and Osteoarthritis in an Acromegalic
Mr P M Aichroth (for Mr D Evans)

Peripheral Arterial Obstruction
Mr A Stoker (for Professor H Ellis)

Treatment of Neoplasms of the Mouth
Mr J Blake (for Mr E Stanley Lee)

Surgical Management of Oral Leukoplakia
Mr J E Bowerman

formal history, examination or investigation, reveal an important inadequacy in the data on which I have been working with the patient. Just as often – dare I say much more often – I find a patient damaged during hospital care, either physically or emotionally, by a lack of understanding of that patient's role in the family or society at large, or even merely in understanding the patient as he sees himself.

Our difficulty as GPs has always been to adjust our hospital trained methods of work to methods based more on knowledge of the practice and of its individuals. The secondary and major problem has necessarily, therefore, been to deal with our own guilt at working differently, or as it is often seen, less well, or less scientifically. Some of our colleagues resign themselves to an inadequate role in medicine for this reason, others overcompensate.

I am encouraged in admitting to, and advocating, a theory of diagnosis based on insight, by a recent paper in *Proceedings* – the report of Professor Michael Polanyi's Nuffield Lecture entitled 'Science and Man' (1970). In this he explains his idea of 'integrative knowledge', in which he says: 'Neither the clues to integration nor the processes of integration can be described by the person performing the integration.' Later he attacks what he sees as the current scientific outlook which seeks to describe all organic processes as a mere sequence of (physiological) topographical configurations. He thinks that the integration of biological clues into a meaning is not 'a process like drawing mathematical conclusions from strict premisses. The clues include unspecifiable shapes, colours, sounds, touches and smells essential to biological identifications, and their integration is a tacit operation transforming our sight of the clues into the sight of the living being to which they point'.

I do not think you will find the essence of general practice ever more clearly described by a non-general-practitioner. But he also clearly shows the difficulty, if not the impossibility, of teaching such a view of practice to young doctors. Let us, however, not cease to try.

REFERENCE
Polanyi M (1970) *Proc. roy. Soc. Med.* 63, 969

Meeting January 20 1971

The following papers were read:

The General Practitioner's Role in the Control of New Drugs
Dr John Sedgwick

The Control of New Drugs within the Pharmaceutical Company
Dr C Maxwell

Drug Safety Control in the United Kingdom
Dr D Mansel-Jones

A short report of this meeting appears in the *Practitioner* (1971) **206,** 546

Meeting March 17 1971

The following papers were read:

Illness, the Unwelcome Guest
Dr W A Weller

Imported Disease
Professor B Maegraith

Keep Well, Traveller
Dr A C Turner

A short report of this meeting appears in the *Practitioner* (1971) **206,** 815.

change might be linked to increasing age because of effects of external agents on the brain.

Ageing of the brain can be regarded as a particularly important result of the general biological process of senescence (Comfort 1964, Medvedev 1967). Its significance is shown, for example, by the pre-eminence of dysfunction of the nervous system in the assessment of human senescence (Comfort 1969); the linear correlation which exists between brain size and life span (Sacher 1959); and, more speculatively, by Bullough's recent hypothesis (1971) about the key role of a population of such post-mitotic cells as neurones in triggering the ageing process itself. The universality of some of the processes involved extends to the formation of abnormally cross-linked high molecular weight compounds in senescent non-neural tissues (Heikkinen 1968, Verzar 1968), which in a formal way resembles the aberrant polymerization of the protein subunits that form the pathological microtubules of plaques and tangles (Shelanski & Taylor 1970), and the production of the complex aminoglucosan polymers found in corpora amylacea (Sakai *et al.* 1970). Alzheimer's disease cannot be regarded just as accelerated ageing of the nervous system, but it may resemble it sufficiently to justify comparative studies of pathogenetic mechanisms and their possible treatment (Bender 1970).

Ageing of the Brain in Animals

In comparison with man, ageing of the nervous system of animals has so far been relatively neglected. It may be difficult to decide when an animal is senescent, but even in large series of 'old' domesticated, laboratory or wild species there have been considerable differences from man in the incidence and severity of age-related lesions, e.g. corpora amylacea have rarely been described (Quay 1970, Dayan 1971), neurofibrillary tangles have not been reported at all, and senile plaques seem to occur only very late in life and in small numbers (Braunmühl 1956, Wiśniewski *et al.* 1970). Such lesions as amyloid deposition around small blood vessels, lipofuscin formation, neuroaxonal dystrophy and neuronal fallout do occur, but probably with considerable inter-species variations in onset and intensity (Dayan 1971).

The extensive range of effects that growing old has on the nervous system of different species cannot yet be accounted for, but it does suggest that many different processes are involved in senescence, including perhaps exogenous as well as endogenous factors. Further comparative studies should reveal much about the etiology and pathogenesis of ageing in general, but might be even more profitable if directed towards one organ – the brain.

REFERENCES
Armitage P & Doll R (1957) *Brit. J. Cancer* **11,** 161
Balázs R et al. (1968) *J. Neurochem.* **15,** 1335
Barondes (1967) *Neurosci. Res. Progr. Bull.* **5,** 307
Bender A D, Kormendy C G & Powell R (1970) *Exp. Geront.* **5,** 97
Braunmühl A von (1956) *Arch. Psychiat. Nervenkr.* **194,** 396
(1957) In: Handbuch der speziellen pathologischen Anatomie und Pathologie. Ed. O Lubarsch, F Henke & R Rössle. Berlin; **13/1A,** 337
Bullough W (1971) *Nature (Lond.)* **229,** 608
Comfort A (1964) Biology of Senescence. London
(1969) *Lancet* ii, 1421
Corsellis N (1962) Mental Illness and the Ageing Brain. London
Dayan A D (1970*a*) *Acta neuropath. (Berl.)* **16,** 85
(1970*b*) *Acta neuropath. (Berl.)* **16,** 95
(1971) *Brain* **94,** 32
Eayrs J T (1966) *Sci. Basis Med. ann. Rev.* 317
Gellerstedt N (1933) *Upsala Läk.-Fören. Förh.* **38,** 193
Gonatas N K & Gambetti P (1970) In: Wolstenholme & O'Connor (1970), p 169
Gottfries C G, Gottfries I & Roos B E (1969*a*) *Brit. J. Psychiat.* **115,** 563
(1969*b*) *J. Neurochem.* **16,** 1341
Grünthal E (1926) *Z. ges. Neurol. Psychiat.* **101,** 128
Heikkinen E (1968) *Acta physiol. scand.* Suppl. 317
Hirano A (1970) In: Wolstenholme & O'Connor (1970), p 185
Hirano A & Zimmerman H M (1962) *Arch. Neurol. (Chic.)* **7,** 227
Ishii T (1966) *Acta neuropath. (Berl.)* **6,** 181
Kidd M (1964) *Brain* **87,** 307
Matsuyama H et al. (1966) *Excerpta med. (Amst.) int. Congr. Ser.* **100,** 979
Medvedev Z A (1967) *Symp. Soc. exp. Biol.* **21,** 1
Morel F & Wildi E (1950) *Schweiz. Arch. Neurol. Psychiat.* **55,** 439
Quay W B (1970) *J. comp. Path.* **81,** 89
Sacher G A (1959) In: Ciba Foundation Symposium on the Lifespan of Animals. Ed. G E W Wolstenholme & M O'Connor. London; p 115
Sakai M et al. (1970) *Neurology (Minneap.)* **20,** 160
Shelanski M L & Taylor E W (1970 In: Wolstenholme & O'Connor (1970), p 249
Simchowicz T (1911) *Histol. histopath. Arb. Grosshirnrinde* **4,** 267
Sourander P & Sjögren H (1970) In: Wolstenholme & O'Connor (1970), p 11
Tariska I (1970) In: Wolstenholme & O'Connor (1970), p 51
Terry R D & Wiśniewski H (1970) In: Wolstenholme & O'Connor (1970), p 145
Tomlinson B E, Blessed G & Roth M (1968) *J. neurol. Sci.* **7,** 331
(1970) *J. neurol. Sci.* **11,** 205
Verzar F (1968) *Exp. Geront.* **3,** 69
Wildi E, Linder A & Costoulas G (1964) *Psychiat. et Neurol. (Basel)* **148,** 41
Wiśniewski H et al. (1970) *Lab. Invest.* **23,** 287
Wolstenholme G E W & O'Connor M ed (1970) Alzheimer's Disease and Related Conditions. London

The following paper was also read:

Recent Observations on the Neuropathology of Epilepsy

Dr J A N Corsellis
(Runwell Hospital, near Wickford, Essex)

REFERENCE
Taylor D C, Falconer M A, Bruton C J & Corsellis J A N (1971) *J. Neurol. Neurosurg. Psychiat.* (in press)

Meeting October 13 1970

Dr Wilfrid Warren delivered his Presidential Address, entitled **You Can Never Plan the Future by the Past** (Warren, 1971, *J. Child Psychol. Psychiat.* **11,** 241).

Books recently presented and placed in the Society's Library

Indian Cancer Society: Bombay Cancer Registry
Cancer in greater Bombay 1964–66: three-yearly report
pp 47 illustrated
Bombay: Indian Cancer Society 1970

International Commission on Radiological Protection, Committee 3
Protection against ionizing radiation from external sources: a report adopted by the Commission in November 1969.
ICRP publication 15
pp 34
Oxford, New York &c.: Pergamon Press 1970

International Commission on Radiological Protection, Committee 3
Protection of the patient in X-ray diagnosis: a report adopted by the Commission in November 1969. ICRP publication 16
pp 46 illustrated
Oxford, New York &c.: Pergamon Press 1970

Medical Research Committee
Biochemical research in psychiatry: survey and proposals. Report by a council committee
pp 35 30p
London: HMSO 1970

Moritz A R & Morris R C
Handbook of legal medicine
3rd ed pp 238 illustrated £3·95
London: Kimpton
St Louis: Mosby 1970

North Atlantic Treaty Organization: Advisory Group for Aerospace Research and Development
Fluid dynamics of blood circulation and respiratory flow. Papers presented at Fluid Dynamics Panel Specialists' Meeting, Naples, May 1970
pp 353 illustrated
NATO: 1970

Robertson R F *ed*
Hazards of therapy. Symposium held at Edinburgh, December 1968. Royal College of Physicians of Edinburgh publications No 36
pp 150 illustrated £1·25
Edinburgh: Royal College of Physicians of Edinburgh 1969

Simionescu N
The histogenesis of thyroid cancer
pp 173 illustrated £9
London: Heinemann Medical 1970

Smart J V
Elements of medical statistics
2nd ed pp 176 illustrated £2·50
London: Staples Press 1970

Société internationale d'histoire de la médecine
22nd international congress, held at Bucuresti-Constanta (Romania), August – September 1970. Abstracts
pp 123
1970

Stanton B R & Exton-Smith A N
A longitudinal study of the dietary of elderly women
pp 32 40p
London: King Edward's Hospital Fund for London 1970

Stewart M C
My brother's keeper?
2nd ed pp 181 illustrated
London: Health Horizon, for the Chest and Heart Association 1971

Turner A R
Frozen blood: a review of the literature 1949–1968
pp 206 £6·25
New York, London &c.: Gordon & Breach 1970

West J B
Ventilation/blood flow and gas exchange
2nd ed pp 117 illustrated £1·50
Oxford & Edinburgh: Blackwell Scientific 1970

Williams W W
Sterility: the diagnostic survey of the infertile couple
3rd ed pp 515 illustrated
Springfield, Mass.: Walter W Williams 1964

Winner H I & Hurley R *eds*
Symposium on candida infections
pp 249 illustrated £1·75
Edinburgh & London: Livingstone 1966

Vessel Patterns in Pulmonary Atresia [*Summary*]

by K Jefferson FRCP FFR, S Rees MRCP FFR
and J Somerville MD MRCP
(*National Heart Hospital
and Institute of Cardiology,
London W1*)

Pulmonary atresia is a rare congenital anomaly of the heart in which the blood supply to the lungs is derived exclusively from the systemic circulation. A study of 30 patients reveals that the pattern of these systemic arteries is variable and is related to the degree of pulmonary artery development. The patients were studied arteriographically, and in 3 cases post-mortem data were available. With full central pulmonary artery development, the systemic arteries to the lungs are numerous, small and tortuous, arising from a wide area, including the thoracic aorta, subclavian and internal mammary arteries. This pattern was quite distinct from those with absent central pulmonary arteries, in whom the systemic arteries were much less numerous, usually 3 or 4, and were larger, passing into the hilum to join with the lobar pulmonary arteries. The point of junction was often marked by a segment of stenosis. The small tortuous type of artery also linked up with the pulmonary circulation at hilar level, and in these patients the arteriograms showed late retrograde filling of the central pulmonary arteries.

Persistent ductus was the source of pulmonary blood supply in 7 patients, usually without additional collaterals, although in 3 the ductus supplied one lung only, the opposite lung being supplied by small type arteries in 2, and large type in one. Very large systemic arteries joining hilar pulmonary arteries were seen in 3 patients, and the appearance of the arteries in the lungs showed clear evidence of pulmonary hypertension.

Pulmonary atresia is now a correctable lesion (Ross & Somerville 1968) but operability depends on central pulmonary artery development. The presence of the multiple small tortuous type of collaterals provides strong evidence that the pulmonary arteries are present and that surgical treatment is feasible.

[A full report will be published elsewhere.]

REFERENCE
Ross D N & Somerville J
(1968) *V europ. Congr. Cardiol.* (Athens)

Meeting April 16 1971

Dr D Shaw and **Dr A Appleby** read papers on the subject of **A Neurological and Radiological Study of the Cervical Spine in Rheumatoid Arthritis**

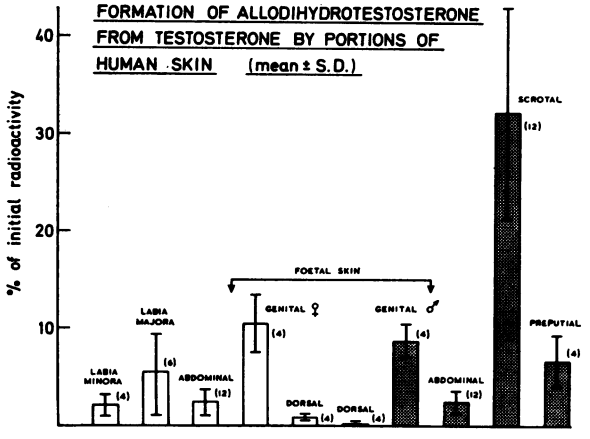

Fig 4 *The percentage conversion of testosterone into 5α-dihydrotestosterone by skin from human fœtuses and adult men and women*

Studies in Adult Skin

The spectrum of metabolites from the incubation of testosterone with abdominal and scrotal skin from healthy adult men is shown in Fig 2. More testosterone is metabolized in scrotal skin, with significantly higher yields of 5α-dihydrotestosterone and 5α-androstanedione. There was a significantly higher yield of androstanedione in abdominal skin. The results from a similar series of abdominal skin and labia majora from 6 healthy women showed that, as in the scrotum, more testosterone is metabolized by the labia majora, but the yield of 5α-dihydrotestosterone was much lower.

A comparison of the metabolism of testosterone by skin from the scrotal area of 12 healthy men and labia majora of 6 healthy women is shown in Fig 3. There is a highly significant difference in the amount of testosterone transformed and 5α-dihydrotestosterone produced; more 5α-dihydrotestosterone is formed by scrotal skin and more androstenedione by the labia majora. On the other hand, there was no significant difference in the metabolism of testosterone in samples of abdominal skin from 12 healthy men and 12 healthy women. Furthermore, similar findings were obtained with abdominal skin from 6 patients with the feminine type of male pseudohermaphroditism whereas genital skin from 3 of these patients formed 5α-dihydrotestosterone in similar yield to the labia majora.

A summary of our findings upon the formation of 5α-dihydrotestosterone from testosterone by equal portions of skin from human fœtuses and adult men and women is shown in Fig 4. The full details, including a statistical analysis, will be published elsewhere (Flamigni *et al.* 1971).

REFERENCES

Cameron E H D, Baillie A H, Grant J K, Milne J A & Thomson J (1966) *J. Endocr.* **35**, xix

Collins W P, Koullapis E N, Bridges C E & Sommerville I F (1970) *J. Steroid Biochem.* **1**, 195

Collins W P, Mansfield M D, Bridges C E & Sommerville I F (1969) *Biochem. J.* **113**, 399

Flamigni C A, Collins W P, Koullapis E N, Craft I, Dewhurst C J & Sommerville I F (1971) *J. clin. Endocr.* (in press)

Flamigni C A, Collins W P, Koullapis E N & Sommerville I F (1970) *Endocrinology* **87**, 764

Gomez E C & Hsia S L (1968) *Biochemistry* **7**, 24

Kim M H & Hermann W L (1968) *J. clin. Endocr.* **28**, 187

Wilson J D & Walker J D (1969) *J. clin. Invest.* **48**, 371

The following papers were also read:

Correlation of Calcium Absorption with Levels of Serum and Urine Calcium in Patients with Endocrine Disease

Dr V Nunziata, Dr M Reiner, Dr A Nadarajah, Dr N J Y Woodhouse, Mrs Janet Earl and Dr G F Joplin

True Thyroid Adenoma

Dr D Ferriman, Mr T M Hennebry and Dr C Tassapoulos

Books recently presented and placed in the Society's Library

Crown S
Essential principles of psychiatry
pp 297 £3
London: Pitman Medical & Scientific 1970

Cuba: Centro Nacional de Información de Ciencias Médicas
Glosario de terminos medicos
pp 325
La Habana: Instituto del Libro 1970

Davis E & Landau J
Clinical capillary microscopy. With the assistance of M Ivry
pp 231 illustrated £10·30
Springfield, Ill.: Thomas 1966

De Gruchy G C
Clinical hæmatology in medical practice
3rd ed pp 800 illustrated £4·50
Oxford & Edinburgh: Blackwell Scientific 1970

Heald F P & Hung W *eds*
Adolescent endocrinology
pp 174 illustrated £4·20
London: Butterworth
New York: Appleton-Century-Crofts 1970

Healey J E jr *ed*
Ecology of the cancer patient: Proceedings of three interdisciplinary conferences on rehabilitation of the patient with cancer
Princeton, New Jersey, 1967–8;
Belmont, Elkridge, Maryland, 1969
pp 184
Washington: Interdisciplinary Communication Associates, for the Interdisciplinary Communications Program, the Smithsonian Institution 1970

Hill O W *ed*
Modern trends in psychosomatic medicine: 2
pp 320 £4·50
London: Butterworth 1970

Hockey L
Care in the balance: a study of collaboration between hospital and community services
pp 163 illustrated 50p
London: Queen's Institute of District Nursing 1968

Jadresic A
La hipofisectomia en clinica
pp 190 illustrated
Santiago: Editorial Universitaria S A 1969

Jennett W B
An introduction to neurosurgery
2nd ed pp 365 illustrated £3·50
London: Heinemann Medical 1970

Kagan B M
Antimicrobial therapy: with contributions by 46 authorities
pp 500 illustrated £6·15
Philadelphia, London &c.: Saunders 1970

Kreig M B
Black market medicine
pp 304 illustrated
Englewood Cliffs: Prentice-Hall 1967

Lamb L E
Your heart and how to live with it
pp 247 illustrated
London: Allen & Unwin 1970

Ledermann E K
Philosophy and medicine
pp 180 £2·90
London: Tavistock
Philadelphia & Montreal: Lippincott 1970

Massey J B
Manual of dosimetry in radiotherapy: a practical guide for testing and calibrating equipment used in external beam treatments
International Atomic Energy Agency, Technical Reports Series No 110
pp 138 illustrated £1·70
Vienna: International Atomic Energy Agency 1970

Mawdesley-Thomas L E
Neoplasia in fish: a bibliography
Reprinted from *Journal of Fish Biology* (1969) **1**, 187–207

Møller-Christensen V
Bogen om Aebelholt kloster
pp 284 illustrated
København: Dansk Videnskabs Forlag 1958

the paramedian zone ventrolateral to the medial longitudinal bundle crossing the midline at the level of the oculomotor-trochlear nuclei and continuing in the paramedian zone of the pontine tegmentum. The mesencephalic and pontine portions of this pathway occupy the general regions of the excitatory or activating reticular formation.

A lesion in any part of this pathway may interfere with conjugate voluntary gaze and the fast component of optokinetic and vestibular nystagmus. If the lesion is a unilateral one in the frontal cortex or pons, the initial ophthalmoplegia is in the lateral plane. In the case of patients with basal ganglion disease, vertical eye movements are primarily involved together with lateral gaze in more advanced cases.

Acknowledgment: I am grateful to the physicians of the National Hospital, Queen Square, and elsewhere, who have referred their patients for examination.

REFERENCES
Bender M B & Shanzer S
(1964) In: Oculomotor System. Ed. M B Bender. New York; p 81
Brucher J H (1964) L'Aire Oculogyre Frontale du Singe. Brussels
Dix M R (1970) *Adv. Otorhinolaryng.* **17**, 118
Holmes G (1936) *Irish J. med. Sci.* **129**, 565
Martin J P (1967) The Basal Ganglia and Posture. London

Mr C S Hallpike said that Dr Dix's paper was open to certain criticisms. In response to head-tilting up and down, a doll's eyes would retain their inclination to the horizontal. This was dependent upon a gravity-operated mechanism. The same happened in mammals and was again dependent upon a gravity-operated mechanism – the otoliths. When the tilting involved the cervical spine the otoliths were reinforced by the neck reflexes. Furthermore, in turning of the head from side to side, the neck reflexes acted alone in retaining the eyes in their zero position. Dr Dix had not said what she had done in her patients to evaluate the action of the neck reflexes and had indeed made no mention of them. This was a serious omission. For an explanation of the loss of the rapid component of induced nystagmus it was almost certainly wrong to turn to any lesion of corticofugal fibres at the thalamic level. After all, A de Kleyn (1939, *Confin. neurol. (Basel)* **2**, 257) had made it clear that vestibular nystagmus, complete with its slow and rapid components, could be induced in a mammalian preparation after transection of the brain stem quite a short distance above the VI nerve nuclei. It was something in the lower brain stem itself, therefore, which subserved the rapid component of nystagmus, and this something was generally held to be the pontine reticular elements. In the human subjects that Dr Dix had described the basal ganglia and other structures at this level might well have been diseased. At the same time, no pathological evidence which excluded the existence of pontine lesions had been offered.

It was generally accepted that the disorder of ocular movement characterized by the 'doll's head' sign was due to an organic affection of the pons in which were situated the lower centres which control conjugate eye movements. Hence it was unnecessary to look beyond the pons for its cause.

Dr Dix said that the essence of Mr Hallpike's remarks reduced to two criticisms: (1) That the essential mechanism for the fast component of nystagmus had already been shown to be confined to the pontine reticulum. (2) That the effect of neck tonus had been neglected in Dr Dix's observations of ocular counter-rolling.

In reply to (1), the finding of absence of any fast component of nystagmus with preservation of the slow component following lesions of the neuraxis rostral to the pons had been well established by Brucher and Bender and his co-workers in ablation and stimulation experiments followed up by autopsy examinations in monkeys. De Kleyn had worked with rabbits. It might thus well be that this species difference could be responsible for the disparity in results.

In reply to (2), it was known that counter-rolling of the eyes following head movements, whether in the vertical or horizontal plane, was dependent upon stimulation of the labyrinth in addition to cervical and retinal fixation impulses (J P M Flourens, 1830, *C. R. Acad. Sci. (Paris)* **9**, 455). Moreover, this counter-rolling was much more obvious in animals with no voluntary eye movements, such as the rabbit. If voluntary gaze movements were paralysed in man then counter-rolling of the eyes on head movements was evident and had been described as Bielchowsky's phenomenon.

Apart from absence of voluntary gaze, in many of Dr Dix's patients with basal ganglion disease the head was already virtually immobilized with respect to the trunk by muscular rigidity, and neck turning could thus have played little part in the ocular counter-rolling elicited. Observations in such cases were made by tilting the patient or turning in a rotating chair. The fact that visual fixation was immaterial for the preservation of this reflex was established by the use of Frenzel's glasses or by recording of eye movements in darkness. The demonstration of an intact ocular counter-rolling reflex in Dr Dix's cases would substantiate the view that the vestibulo-ocular pathways in the lower brain stem were intact.

The following paper was also read:

The Significance of Optic Fixation Upon Tests of Vestibular Function
Dr J D Hood

REFERENCE
Hood J D (1970) *Adv. Otorhinolaryng.* **17**, 149

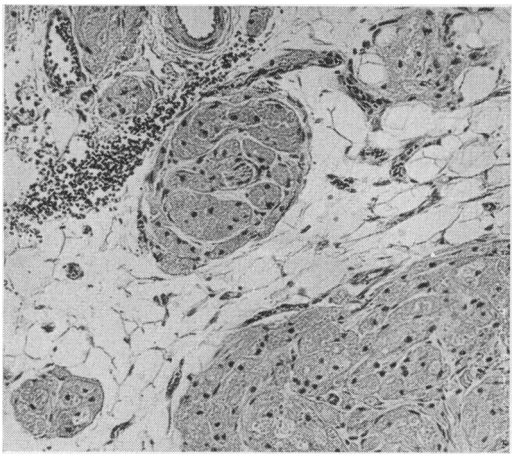

Fig 1 *The granular cells tend to be arranged round dermal nerve fibres. H & E. × 110*

shows one nodule on the deltoid area and two nodules on the volar aspect of the forearm. The nodules are soft, oval, smooth-surfaced, intradermal, and yellow-brown: the largest is 1 cm in its long axis.

Investigations: Skeletal age 4 years. Intelligence quotient normal. The following were normal: skull and chest X-rays, electrolytes, blood urea, cholesterol, calcium, phosphorus, immunoglobulins, alkaline phosphatase, Bovril test, protein-bound iodine, hæmoglobin, white cell count, ESR, platelets, prothrombin time, urine microscopy and culture, urine amino acid pattern and stool tryptic activity.

Biopsy report: Throughout the lesion there are focal collections of bulky cells, containing PAS-positive granules. They have the typical appearance of granular myoblastoma cells and many are grouped around nerve axons, some lying entirely within the perineurium (Fig 1).

Comment

In a review of the literature up to 1966 (Moscovic & Azar 1967), 550 published cases of granular cell myoblastoma were traced. Of these only 36 were patients with multiple lesions. There were only 4 patients who developed multiple lesions under the age of 10.

An outstanding feature of the present case is the tendency for the granular cells to be arranged concentrically around dermal nerve fibres. This lends support to the theory that the granular cells may be derived from Schwann cells.

No systemic abnormality has been consistently reported with granular cell myoblastoma. The association in this boy of a mild bleeding tendency, small stature and granular cell myoblastoma is likely to be a chance one.

REFERENCE
Moscovic E A & Azar H A
(1967) *Cancer (Philad.)* 20, 2032

The following cases were also presented:

(1) Unilateral Hirsutism, Epithelial Nævus, Polydactyly, Premature Fusion of Epiphyses of Right Leg and Myasthenia Gravis
(2) Pigmented Hairy Nævus and Vitiligo
Dr Julia P Ellis (for Dr K V Sanderson)

Primary Amyloidosis
Dr A J Millar (for Dr K V Sanderson)

Nail Dystrophy with Vitiligo
Dr S C Gold

Klinefelter's Syndrome
Dr Aziz Kurwa

(1) Xanthoma Disseminatum
(2) Darier-like Keratoses (Three Cases)
Dr Julia P Ellis (for Dr S C Gold)

Histiocytosis X
Dr J A Savin (for Dr H J Wallace)

Purpura in Dermatitis Herpetiformis
Dr Ronald Marks and Dr E Wilson Jones

Incontinentia Pigmenti
Dr C N Storrs (for Dr E J Moynahan)

Behçet's Syndrome Affecting the Brain Stem and Cerebellum
Dr R S H Tan (for Dr H J Wallace)

Kyrle's Disease
Dr W A D Griffiths (for Dr H J Wallace)

the Stryker Circolectric bed[1] (Fig 1), with which she could be turned painlessly and without effort, and Roehampton burn dressings[2]. These consist of sterile polyurethane foam sheets about 2 cm thick. The patient was able to lie on one sheet without risk of denuded skin adhering to it, while any exudate was absorbed by the foam itself. Non-adherence could be increased by spraying the polyurethane foam sheets with a silicone fluid prior to use.

General Conclusions

Despite the hazards of methotrexate when given to a female patient of child-bearing years, it may be the only practical therapy, and life-saving.

REFERENCES
Duke-Elder W S ed
(1965) System of Ophthalmology. London; **8**, 556
Vrabec F (1952) *Opthalmologica (Basel)* **124**, 105

[1]The Stryker Circolectric bed is supplied in the UK by Down Bros & Mayer & Phelps Ltd, Mitcham, Surrey

[2]Roehampton burns dressings are manufactured by Price Bros & Co Ltd, Wellington, Somerset

The following cases were also presented:

(1) **Morphœa, Ulcerative Colitis, Chronic Active Hepatitis, Pityriasis Versicolor**
(2) **Latent Dermatomal Spider Nævus Precipitated by Thyrotoxicosis**
Dr D D Munro

Hirsuties, Male-pattern Baldness
Dr A Macdonald (for Dr M Feiwel)

(1) **Universal Poikiloderma**
(2) **Chronic Superficial Dermatitis with Annular Lesions**
Dr J L Verbov (for Dr P F Borrie)

Tylosis Associated with Carcinoma of Stomach
Dr D O'Gorman (for Dr D D Munro)

Malignant Atrophic Papulosis (Degos' Syndrome)
Dr M M Black (for Dr E Wilson Jones)

Mycosis Fungoides
Dr L Fry

Lupus Erythematosus Panniculitis of Buttocks
Dr M Epstein (for Dr M Feiwel)

Meeting May 20 1971

The following cases were presented:

(1) **Fabry's Disease**
(2) **Darier's Disease**
(3) **Nævoxantho-endothelioma**
Dr T W E Robinson

***Hendersonula toruloidea* Infection**
Dr Aziz Kurwa

Hyperviscosity Syndrome
Dr G M Levene

(1) **Multiple Halo Nævi (Two Cases)**
(2) **Cold Urticaria**
Dr S S Bleehen

Vitiligo Localized to Left Forequarter
Dr P W M Copeman

Recurrent Widespread Warty Acanthomata of Unknown Origin
Dr E Abell
(for Dr P Samman)

Index to Advertisers

Proceedings Price List

Volumes 59–64 (1966–71) inclusive

Copies may be obtained through any bookseller or direct from the following:
H K Lewis & Co Ltd 136 Gower St London WC1
In the USA: Henry M Stratton Inc
757 Third Avenue New York New York 10017
For whole Proceedings required by Fellows and Members, or for reprints of Sectional parts
Royal Society of Medicine 1 Wimpole St
London W1M 8AE

Whole Proceedings
Single copies £1·25 net (USA $3.50)
Annual subscription £15 (USA $42)
(covering 12 monthly issues and annual index)
Annual index, separately, £2 net (USA $4.80)
Reprints of Sectional parts
Single copies 35p net
Annual subscription £1·75

The Society reserves the right to supply second-hand copies, at the prices quoted above, if no new copies are available

Volumes 1–58 (1907–65) inclusive

Copies of these earlier volumes whether whole or Sectional may be obtained through any bookseller or direct from Johnson Reprint Co Ltd
Berkeley Square House
Berkeley Square London W1X 6BA
In the USA: Johnson Reprint Corporation
111 Fifth Avenue New York 3

Available as complete volumes
At £10 per vol: Vols 3–6, 22–52, 54
At £12 per vol: Vols 55–56

Available as single issues at £1 net
Some issues: Vols 1, 2, 7–21, 53
All issues: Vols 3–6, 22–52, 54–56

Individual Sections, Lectures, Symposia and special publications: prices and availability on request

PRINTED IN ENGLAND BY STAPLES PRINTERS LIMITED AT THEIR STRATFORD, LONDON, ESTABLISHMENT